

CLAIMS

1. A method for client request servicing comprising:

assigning a primary server from a plurality of servers to a client;

5 routing a request from said client to said primary server; and

servicing said request with said primary server.

2. The method of claim 1 wherein said step of assigning comprises:

ordering said plurality of servers; and

10 selecting a next server.

3. The method of claim 1 wherein said step of assigning comprises:

determining a first server;

determining a number of clients said first server is currently serving;

15 selecting a second server if said number is greater than a threshold for said first
server.

4. The method of claim 3 wherein said second server must serve as said primary

server.

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5. The method of claim 3 wherein said step of selecting comprises:

determining a status of said second server.

6. The method of claim 5 wherein said status comprises:

25 a first number wherein said first number is the number of clients said second server
serves as a first primary server; and

a second number wherein said second number is a client capacity of said second server.

7. The method of claim 5 wherein said status further comprises:

5 a third number wherein said third number is the number of client said second server serves as an alternate server.

8. The method of claim 5 wherein said step of determining said status comprises: receiving a plurality of status updates from said plurality of servers.

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9. The method of claim 1 further comprising: assigning an alternate server from said plurality of servers.

10. The method of claim 9 wherein said step of assigning said alternate server is performed by said primary server based on a status of said alternate server.

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11. The method of claim 9 further comprising: reassigning said alternate server as a new primary server and selecting a new alternate server if said primary server becomes unavailable and said client makes a request.

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12. The method of claim 11 further comprising: removing said client from a list of clients served by said primary server.

13. The method of claim 12 wherein said list is maintained in said primary server.

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14. The method of claim 13 wherein said step of removing is performed when said primary server becomes available.

15. The method of claim 1 further comprising:
maintaining a first cache of data items on said client; and
mirroring said first cache in a second cache on said primary server.

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16. The method of claim 15 further comprising:
mirroring said first cache in a third cache on an alternate server.

17. The method of claim 15 further comprising:

10 retrieving a first data item from a data source wherein said step of retrieving is
accomplished by said primary server; and

instructing said client to use a second data item wherein said second data item is in
said first cache if said first data item is equal to a copy of said second data item in said
second cache.

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18. The method of claim 15 further comprising:

calculating a first value from a first data item using a correction method wherein said
first data item is in said first cache;

transmitting said first value from said client to said primary server;

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retrieving a second data item;

calculating a second value from said second data item using said correction method;

and

instructing said client to use said first data item if said second value is equal to said
first value.

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19. The method of claim 18 wherein said step of instructing comprises:

storing said second data item in said second cache.

20. The method of claim 18 wherein said correction method is a cyclic redundancy code.

5 21. A client request servicing system comprising:
an assignment unit configured to assign a primary server from a plurality of servers to a client;
a router configured to route a request from said client to said primary server wherein said primary server is configured to service said request.

10 22. The client request servicing system of claim 21 wherein said assignment unit comprises:
an ordering unit configured to order said plurality of servers; and
a selection unit configured to select a next server.

15 23. The client request servicing system of claim 21 wherein said assignment unit comprises:
a first determiner configured to determine a first server;
a second determiner configured to determine a number of clients said first server is
20 currently serving;
a selection unit configured to select a second server if said number is greater than a threshold for said first server.

25 24. The client request servicing system of claim 23 wherein said second server must serve as said primary server.

25. The client request servicing system of claim 23 wherein said selection unit comprises:

a third determiner configured to determine a status of said second server.

5 26. The client request servicing system of claim 25 wherein said status comprises:

a first number wherein said first number is the number of clients said second server serves as a first primary server; and

a second number wherein said second number is a client capacity of said second server.

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27. The client request servicing system of claim 25 wherein said status further comprises:

a third number wherein said third number is the number of client said second server serves as an alternate server.

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28. The client request servicing system of claim 25 wherein said third determiner comprises:

a receiving unit configured to receive a plurality of status updates from said plurality of servers.

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29. The client request servicing system of claim 21 further comprising:

a second assignment unit configured to assign an alternate server from said plurality of servers.

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30. The client request servicing system of claim 29 wherein said second assignment unit is located in said primary server and is further configured to assign said alternate server based on a status of said alternate server.

31. The client request servicing system of claim 29 further comprising:

a third assignment unit configured to reassign said alternate server as a new primary server and selecting a new alternate server if said primary server becomes unavailable and
5 said client makes a request.

32. The client request servicing system of claim 31 further comprising:

a removal unit configured to remove said client from a list of clients served by said primary server.

33. The client request servicing system of claim 32 wherein said list is maintained in said primary server.

34. The client request servicing system of claim 33 wherein said removal unit is
15 further configured to perform when said primary server becomes available.

35. The client request servicing system of claim 21 further comprising:
a maintenance unit configured to maintain a first cache of data items on said client;
and

a mirroring unit configured to mirror said first cache in a second cache on said
20 primary server.

36. The client request servicing system of claim 35 further comprising:

a second mirroring unit configured to mirror said first cache in a third cache on an
25 alternate server.

37. The client request servicing system of claim 35 further comprising:

a retrieval unit configured to retrieve a first data item from a data source wherein said retrieval unit is located in said primary server; and

an instruction unit configured to instruct said client to use a second data item wherein said second data item is in said first cache if said first data item is equal to a copy of said
5 second data item in said second cache.

38. The client request servicing system of claim 35 further comprising:

a calculation unit configured to calculate a first value from a first data item using a correction method wherein said first data item is in said first cache;

10 a transmitter configured to transmit said first value from said client to said primary server;

a retrieval unit configured to retrieve a second data item from a data source wherein said retrieval unit is located in said primary server;

15 a second calculation unit configured to calculate a second value from said second data item using said correction method; and

an instruction unit configured to instruct said client to use said first data item if said second value is equal to said first value.

39. The client request servicing system of claim 38 wherein said instruction unit
20 comprises:

a storage unit configured to store said second data item in said second cache.

40. The client request servicing system of claim 38 wherein said correction method is a cyclic redundancy code.

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41. A computer program product comprising:

a computer usable medium having computer readable program code embodied therein configured to service a client request, said computer program product comprising:

computer readable code configured to cause a computer to assign a primary server from a plurality of servers to a client;

5 computer readable code configured to cause a computer to route said client request from said client to said primary server wherein said primary server is configured to service said client request.

42. The computer program product of claim 41 wherein said assignment unit
10 comprises:

computer readable code configured to cause a computer to order said plurality of servers; and

computer readable code configured to cause a computer to select a next server.

43. The computer program product of claim 41 wherein said assignment unit
15 comprises:

computer readable code configured to cause a computer to determine a first server;

computer readable code configured to cause a computer to determine a number of clients said first server is currently serving;

20 computer readable code configured to cause a computer to select a second server if said number is greater than a threshold for said first server.

44. The computer program product of claim 43 wherein said second server must serve as said primary server.

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45. The computer program product of claim 43 wherein said computer readable code configured to cause a computer to select comprises:

computer readable code configured to cause a computer to determine a status of said second server.

46. The computer program product of claim 45 wherein said status comprises:
5 a first number wherein said first number is the number of clients said second server serves as a first primary server; and
a second number wherein said second number is a client capacity of said second server.

10 47. The computer program product of claim 45 wherein said status further comprises:
a third number wherein said third number is the number of client said second server serves as an alternate server.

15 48. The computer program product of claim 45 wherein said computer readable code configured to cause a computer to determine said status comprises:
computer readable code configured to cause a computer to receive a plurality of status updates from said plurality of servers.

20 49. The computer program product of claim 41 further comprising:
computer readable code configured to cause a computer to assign an alternate server from said plurality of servers.

25 50. The computer program product of claim 49 wherein said computer readable code configured to cause a computer to assign said alternate server is further configured to cause said primary server to assign said alternate server based on a status of said alternate server.

51. The computer program product of claim 49 further comprising:

computer readable code configured to cause a computer to reassign said alternate server as a new primary server and selecting a new alternate server if said primary server becomes unavailable and said client makes a request.

52. The computer program product of claim 51 further comprising:

computer readable code configured to cause a computer to remove said client from a list of clients served by said primary server.

53. The computer program product of claim 52 wherein said list is maintained in said primary server.

54. The computer program product of claim 53 wherein said computer readable code configured to cause a computer to remove is further configured to perform when said primary server becomes available.

55. The computer program product of claim 41 further comprising:

computer readable code configured to cause a computer to maintain a first cache of data items on said client; and

computer readable code configured to cause a computer to mirror said first cache in a second cache on said primary server.

56. The computer program product of claim 55 further comprising:

computer readable code configured to cause a computer to mirror said first cache in a third cache on an alternate server.

57. The computer program product of claim 55 further comprising:
computer readable code configured to cause a computer to retrieve a first data item
from a data source wherein said retrieval unit is located in said primary server; and
computer readable code configured to cause a computer to instruct said client to use a
5 second data item wherein said second data item is in said first cache if said first data item is
equal to a copy of said second data item in said second cache.

58. The computer program product of claim 55 further comprising:
computer readable code configured to cause a computer to calculate a first value from
10 a first data item using a correction method wherein said first data item is in said first cache;
computer readable code configured to cause a computer to transmit said first value
from said client to said primary server;
computer readable code configured to cause a computer to retrieve a second data item
from a data source wherein said retrieval unit is located in said primary server;
15 computer readable code configured to cause a computer to calculate a second value
from said second data item using said correction method; and
computer readable code configured to cause a computer to instruct said client to use
said first data item if said second value is equal to said first value.

20 59. The computer program product of claim 58 wherein said computer readable
code configured to cause a computer to instruct comprises:
computer readable code configured to cause a computer to store said second data item
in said second cache.

25 60. The computer program product of claim 58 wherein said correction method is
a cyclic redundancy code.